CAZALA 87 A56 1971

ALBERTA LEGISLATURE LIBRARY

3 3398 00480 3978

OCT 2/3 1975

ANNUAL REPORT

FOMONTON

OF THE

VETERINARY SERVICES DIVISION

FOR THE

PROVINCE OF ALBERTA 1971

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON, ALBERTA
Printed by L. S. WALL, Queen's Printer for Alberta

Digitized by the Internet Archive in 2024 with funding from Legislative Assembly of Alberta - Alberta Legislature Library

ANNUAL REPORT

OF THE

VETERINARY SERVICES DIVISION

FOR THE

PROVINCE OF ALBERTA

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON, ALBERTA
Printed by L. S. WALL, Queen's Printer for Alberta

INDEX

	This report is pork carried out nat work.								
01 11	iat work.								
Part	I								
	General Field Services Laboratory Serv								. 4
Part	II								
10	Special Investi Animal Diseases			у -	Catt1	e.		•	. 29
	Sheep, Horse and	d Canir	ne and	Fe1	Fur B	eari	ng	•	. 38
					Labor Wildl Fetus	ife			. 52
	Animal Diseases	- Fiel	Ld Dat		Cattl Swine	e .			5757
	Animal Disease	- Anoti	ion Ma		Sheep	s .			. 57
	Avian Disease -		en Dis	ease	Tab1	е.			. 62
	1.	Misc. Misc.	Speci	mens	Tabl	е,			. 78
	Table of Parasi Salmonella Tabl	es							. 82

Neoplasms

84

VETERINARY SERVICES DIVISION

J. G. O'DONOGHUE, D.V.M., Director
H. N. VANCE, D.V.M., M.Sc., Assistant Director, Head, Laboratory Services
G. R. WHENHAM, D.V.M., Assistant Director, Head, Field Services

Edmonton Laboratory

- G. S. WILTON, D.V.M., Head, Animal Section
 D. W. MacDONALD, D.V.M., M.Sc.
 M. P. HEWITT, M.A., M.V.B., M.R.C.V.S.
- J. HOWELL, D.V.M., Head, Poultry Section J. HANSON, B.Sc., D.V.M.
- F. E. GRAESSER, B.S.A., D.V.M., Head, Histopathology Section
- G. G. KLAVANO, B.Sc., D.V.M., Head, Microbiology Section Shirley RAWLUK, B.Sc. Brenda KHEONG, B.Sc. Emma BARAGER, A.R.T.

Lethbridge Laboratory

- W. N. HARRIES, B.V.M.S., M.Sc., M.R.C.V.S., Head, Lethbridge Laboratory G. A. CHALMERS, D.V.M., Dip. V. Path.
 - J. D. WOOD, B.A.

Fairview Laboratory

R. G. CHRISTIAN, D.V.M., Dip. V. Path., Veterinary Pathologist, Head, J. R. LETAL, B.Sc., M.Sc. Fairview Laboratory

Toxicology Laboratory

- Mrs. K. I. STRAUSZ, B.Sc., (Honors), Head, Toxicology
 - J. E. ROFF, B.Sc., Ph.D., Assistant Head
 - R. D. SEIDNER, Ph.D.
 - D. L. LEWIS, B.Sc. (Honors)

Field Services

- J. P. BEST, D.V.M., Head, Veterinary Inspection
- W. P. BRISBANE, D.V.M., Head, Communicable Diseases
- M. W. STONE, B.Sc., M.R.C.V.S., Herd Health Programs
- G. W. SUMMERS, D.V.M., Meat Hygiene, Emergency Planning Officer
- L. W. PAIGE, Livestock Medicine Inspector

Fur Farms Branch

R. W. GILLIES, Supervisor, Fur Farms

VETERINARY SERVICES DIVISION

J. G. O'Donoghue, D.V.M., Director

Laboratory and field workloads reflected the increased livestock numbers and the dollar investment they represented.

The pilot veterinary clinic at Fairview experienced minor financial problems but appeared to have been well received by the livestock owners. Service demands approached the limits of capability of the one veterinary practitioner.

Time was given to the continued study of the basic problem of providing veterinary service to all livestock producers.

The occurrence of laryngotracheitis in epidemic proportions in the Fraser Valley in April led to restrictions being placed on the movement of poultry and eggs into Alberta from British Columbia. This province remained free of the disease and less restrictive measures remained in force at the year's end.

Abortion in cattle was a major cause of concern. In some 350 herds, losses as high as 60% of the calf crop were reported. The virus of infectious bovine rhinotracheitis was identified as the cause on 151 premises. Unusual calf losses initiated a major investigation into what is popularly referred to as the "weak calf" syndrome.

Rabies continued from the fall of 1970 to April 1971 and was diagnosed in 7 coyotes, 7 bovines, 2 skunks, and 2 dogs.

There was reason to believe that the joint control efforts of

Agriculture, Lands and Forests, and Federal veterinarians were successful. Later, three additional diagnoses were made in bats, a species that presents a different epidemiological situation.

The Guaranteed Loan Policy for mink ranchers was renewed for 1971. Rising market prices at the December sales, the first for the 1971 crop, added a note of optimism.

The Division met the requests for service in all matters related to veterinary medicine and, where applicable, to human health. Of particular note were investigations into salmonellosis in the poultry industry and the identification of triaryl phosphate poisoning in cattle that originated with a high temperature lubricant from a natural gas pumping station.

The co-operation and assistance of other Division, Departments, and Agencies are gratefully acknowledged.

FIELD SERVICES

Extension and field activities included administration of official legislative programs such as livestock inspection, communicable disease control, herd health programs and livestock medicine control. It involved laboratory as well as field services staff. Specific disease outbreaks and pollution problems involving livestock were investigated. Additional responsibilities included lectures at the universities, vocational colleges and Canada Manpower courses, as well as instructional short courses on animal health problems for farmers organized by the Extension Division.

SUMMARY OF ACTIVITIES

Field Investigations		Inspections	
Cattle	35	Markets	177
Swine	6	Stockyards	309
Sheep	4	Livestock Medicine	348
Horses	1	Slaughterhouses	110
Poultry	13	S.H.H.P	205
Fur	151	R.O.P	104
Others	3	Swine Sale	95
Total	213	Pastures	16
-1		Bull Studs	3
		Tota1 1	. 367

Meetings and Short C	ourses	Lectures	
Domestic Animals	63	University	29
Poultry	64	Vocational Colleges	22
Professional	6	Canada Manpower (days)	13
Community Pastures	12	Others	5
Fur Breeders	20	Total	69
Regional	9		
Clinic	7		
Others	17		
Total	138		

COMMUNICABLE DISEASE CONTROL

The voluntary vaccination of heifer calves under the brucellosis program continued to decline, with 41,768 calves vaccinated.

Infectious bovine rhinotracheitis caused widespread outbreaks of abortion in cattle herds throughout the province.

Since this disease appears in many forms, it necessitated numerous farm meetings to describe the disease more fully to farmers and ranchers. Equine infectious anemia and encephalomyelitis were reported along with several cases of foot rot in sheep.

Cattle and sheep were inspected on entry to 19 community pastures totalling 37,163 animals. Deaths and sickness in 71 cattle and 8 sheep were investigated by veterinary practitioners.

The rigid inspection of sheep entering the pastures greatly reduced the incidence of foot rot from the level of the previous year.

The veterinary clinic at Fairview operated successfully with maintenance grants from the department. The purchase of essential equipment for the clinic was authorized by the government in the latter part of the year.

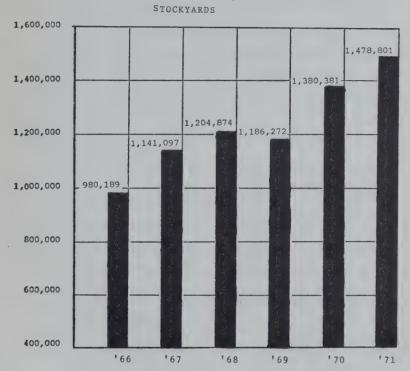
SWINE HERD HEALTH PROGRAM

An increased enrollment was again achieved during 1971 and regular quarterly inspections were maintained on all enrolled herds. Interest in the program was demonstrated by many larger commercial units, and of those participating, one contained nearly 5,000 pigs. One herd attained certified status during the year. A project was set up in conjunction with a new unit stocked with a major importation of pigs from England.

Summary of Activities of

Swine Herd Health Program during 1971:	
Enrollment at January 1, 1971	52
Herd inspections	206
Necropsies performed	122
Specimens examined	808
Enrollment at year end	58

LIVESTOCK INSPECTED AT CLASS "D", "E", AND "F"



LIVESTOCK INSPECTION

The accompanying graph illustrates the total volume of livestock inspected at Class "D", "E" and "F" stockyards from 1966 to 1971 inclusive. Of the 1,478,801 inspected in 1971, 24,838 were rejected as not suitable for unconditional sale. This required 4,968 man days of work by participating veterinarians.

Construction and sanitary inspections were supplied to
23 Class "C" and 145 Class "G" stockyards. The number of Class
"G" stockyards operating has declined steadily from 1967 when
246 were under supervision.

R.O.P. (SWINE) HEALTH INSPECTION

One hundred and four farm visits were made to keep all herds participating in the R.O.P. program under semi-annual inspection. Market specimens were checked in the laboratory on completion of each group test and, if necessary, specimens were collected from the farm to confirm or refute suspicion of disease. One herd was thus cleared and allowed to station test pigs but two herds were rejected.

SWINE SALE INSPECTIONS

Veterinary inspection of all herds contributing to the major provincial swine sales continued with a total of 95 inspections being carried out. On three occasions, a health certificate was not issued because of clinical evidence of infectious disease.

CALGARY QUALITY MILK CONTROL PROGRAM

Regular committee meetings were attended and advice was given regarding mastitis prevention and control.

LIVESTOCK MEDICINE REGULATIONS

Licences were issued to four hundred and forty-three outlets, an increase of 10 over the previous year. Three hundred and forty-eight inspections of licenced outlets and 21 of premises of new applicants were made.

One outlet was reported for selling a restricted drug and was given a written warning and a wholesale company was

investigated for advertising. A number of complaints of a minor nature were investigated and corrected.

Licences to sell poultry disease vaccines were issued to 8 pharmacists, 7 hatcheries and 8 veterinarians.

Under the rabies control program, specimen containers and literature were supplied to control points to help insure that suspected animals were submitted for examination.

ABATTOIRS AND HUMANE SLAUGHTER

Ninety-nine licences were issued under the Humane Slaughter Regulations, 93 of these to abattoirs already licensed as locker plants or specialized processing plants. Three were issued to businesses operating an abattoir only and 3 to educational institutions offering instruction in slaughtering procedures. One hundred and seven abattoirs were inspected and one investigation was conducted regarding slaughter of rabbits.

A survey to determine the incidence of trichinosis in Alberta was completed in 1971. Eight hundred and thirty-one samples from 51 abattoirs representing 594 farms were collected and examined. All were negative.

EMERGENCY PLANNING OFFICER

Two annexes of the resources book were updated and emergency assignments of personnel reviewed.

Eight emergency government areas prepared agricultural annexes to their plans and ten more are being prepared.

Eleven departmental personnel and four part-time employees attended emergency planning courses at Arnprior.

Three departmental personnel participated in Exercise Barnex I at Camrose.

FUR FARMS BRANCH

Three hundred and thirty-five fur farm licences were issued, of which 101 were for mink, 229 for chinchilla and 5 for miscellaneous fur bearers. Twenty-nine mink farmers ceased operations during the year, largely due to the depressed pelt prices.

The guaranteed interim assistance loans policy for mink farmers was extended by 0.C. 363/71 and many mink breeders were able to keep operating in anticipation of improved markets.

Dr. Rendle E. Bowness of Toronto was the featured speaker at fall meetings held in four mink farming areas. A two-week Canada Manpower Course was arranged for Lesser Slave Lake district mink farmers in February.

Three bulletins were published and numerous meetings of fur breeders attended including the annual meeting of the Canada Mink Breeders in Regina.

The rabbit processing plant in Calgary was still in financial difficulty and may close.

Promotion of chinchillas ceased to be a problem in Alberta.

ANNUAL REPORT, 1971

SUMMARY OF STATISTICS

	Licens	ses Issu	ied	Mink Pelts	Mink Pelt
Year	Chinchilla	Misc.	Mink	Produced	Value
1970-71	229	5	101	135,023	1,409,595
1969-70	240	7	130	189,796	1,971,822
1968-69	257	5	155	170,540	2,478,213
1967-68	245	2	184	201,444	2,765,672

Early December sales indicated an increase of 15 to 25% in pelt prices and a trend toward a healthier industry.

LABORATORY SERVICES

Alberta's highly developed livestock industry requires an equally highly developed system of veterinary field and laboratory services to protect it from disease losses. The laboratories at Edmonton, Lethbridge, and Fairview provided specialized diagnostic services which cannot be given in the field. Veterinary practitioners use the laboratories to identify new diseases, assist in diagnosis of problem cases, or to confirm a tentative diagnosis. Stockmen, wildlife biologists and others use the services to establish a diagnosis.

A very careful examination of dead animals or birds is necessary to find the factors which caused death or disease. As research increases our knowledge of diseases, an increasing number of laboratory tests are sometimes required to make use of this new knowledge. In addition to the pathologist's examination, tests may include: bacteriology, virology, toxicology, tissue sections, and many others. Speed in completing these tests and reporting them to the veterinarian or owner is essential to prevent heavy losses by implementing the best treatment and control for the particular disease or diseases.

The Fairview Laboratory completed it's first full year of service. While well over 1,000 animals and birds were

examined, our facilities have a capacity for many more specimens and we anticipate more will be received as stockmen in the Peace River district become aware of the service available.

In addition to the work in the laboratory, staff visited many farms in response to requests from veterinarians or stockmen for this type of investigation of disease problems.

In addition to the responsibilities to agriculture, our Toxicology Section serviced the medical profession, health units, police departments, and other departments of government by carrying out chemical analyses related to the work of these agencies. Analyses involved mainly cases of suspected poisonings and non-medical drug use, but again included analysis of many game birds for mercury residues.

Laboratory Services administers the staff of the Shared Services Section which provides pickup and delivery, mail, duplicating services, etc. to all other laboratories in the Longman Building.

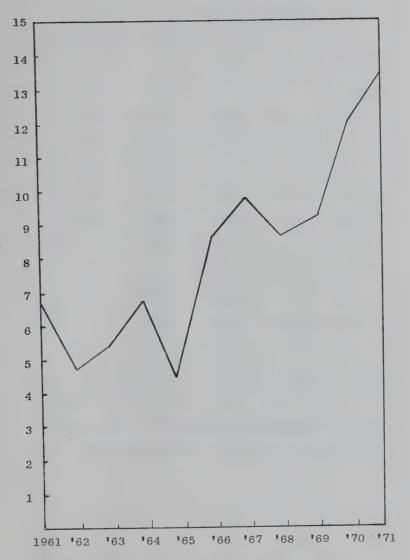
Dr. W. N. Harries studied pathology at the University of London and was awarded a Master's Degree in diagnostic pathology. Dr. R. G. Christian became a member of the American College of Veterinary Pathologists.

The table and figure below illustrates the continued increase in use of the services we provide. The greatest increase was at Lethbridge.

SPECIMENS EXAMINED (by laboratory sections)

	No. Spe	ecimens E	xamined
EDMONTON	1969	1970	1971
Animal	10,747	13,430	13,872
Poultry	7,724	12,919	18,675
Microbiology	12,972	15,493	16,967
Histopathology	15,527	18,058	21,973
Parasitology	. 879	1,527	1,682
Toxicology	13,410	14,033	12,042
LETHBRIDGE			
Animal	2,641	2,629	3,837
Poultry	1,199	2,314	2,054
Microbiology	2,449	2,823	3,104
Histopathology	2,596	3,626	3,511
FAIRVIEW			
Animal	0	7	1,877
Poultry	0	1	250
Microbiology	0	7	1,725
Histopathology	0	57	2,336
Totals	70,144	86,924	103,905

Submissions in thousands



"Submission" refers to a shipment received from an individual farm or case. Each submission may be composed of several "specimens" i.e., tissues, blood, or milk samples, etc. Following is a list of species and numbers of specimens of each received and examined.

	Edmonton	Lethbridge	Fairview	
Cattle	5,903	2,491	620	
Swine	4,203	577	344	
Sheep	390	180	267	
Horse	272	83	75	
Dog	1,125	217	127	
Cat	310	101	28	
Fur	223	30	4	
Wildlife	578	158	55	
Chickens	5,855	1,712	220	
Turkeys	1,513	279	22	
Bloodsavian	10,573	16		
animal	169	× 566		
Milk	2,575	196	360	
Othersavian	734	145	5	
animal	799	867	2	
Total	35 222	7,618	2,129	
10tdI	33,444		2,129 FOTAL44,	060
		GRAND 1	OIAL44,	203

(Figures do not include toxicology section or specimens referred from one laboratory section to another)

TOXICOLOGY SECTION

The laboratory performs chemical analyses for the Provincial Veterinary Services, as well as for various health and government agencies of the province, including police forces, and on a limited scale for individuals and industries.

The total number of specimens processed during the year 1971 were 12,158. Two thousand and seventy-five samples of human tissues and body fluids were analyzed for hospitals, coroners and police forces (from live patients and post mortem cases). Also analyzed were 1,348 animal tissues and body fluids. The presence of toxic substances were investigated in 129 feed samples.

Water analyses were performed on 4,937 samples to determine suitability for human consumption, irrigation and industrial purposes for health units, veterinary services and individuals. Of these, 466 were analyzed for trace components.

Six hundred and forty-two specimens and exhibits were tested for R.C.M.P. and local police forces. These were of a large variety and involved complex chemical and physico-chemical examinations. The head of the laboratory appeared at court hearings on 71 occasions.

PROMINENT DISEASES - Cattle

Disease	nton Lethbrid	ge Fairview
Abortions (all causes) 86	180	21
Blackleg	38 3	
Bloat	46 37	14
Coccidiosis	26 7	7
Colibacillosis	L 5 27	
Hemophilus Meningoencephalitis	0	
Inf. Bov. Rhinotracheitis 3	30 12	
Johne's Disease	2	
Lungworm Infection	LO	4
Malignant Edema	36	2
Pneumonia (Infectious) 29	96	18
(Atypical Interstitial)	9 4	18
Poisoning	55 22	11
Polioencephalomalacia	30 11	
Virus Diarrhea	15 12	2
Vitamin A Deficiency	71 18	

Exceptionally high abortion rates occurred in some herds due to I.B.R. infection. Many meetings were addressed at which vaccination against this disease was recommended. There were reports of herds with many calves weak at birth or becoming weak soon after birth.

A questionnaire was circulated and farms were visited in an attempt to determine the extent and causes of calf losses. While we did find some problem herds the extent was not severe enough to affect the overall calf crop of the province. Calf scours, shipping fever, and other types of pneumonia continued as the major disease problems. Twenty-four cases of Hemophilus meningoencephalitis, by far the highest incidence of the disease seen in Alberta to date, were diagnosed in the first two weeks of December. White muscle disease continued as a problem and we do not yet know the full extent of its economic importance. Coccidiosis appears to be increasing in frequency, especially in feed lot calves.

Swine

Disease				1	Edmonton	Lethbridge	Fairview
Abortions (all causes)		٠			38	11	
Anemia	٠	٠	•		5	18	
Atrophic Rhinitis	۰	٠		٠	28	5	6
Colibacillosis	•				104	62	36
Edema Disease	٠			•	11	1	1
Encephalitis					26	1	
Enteritis	a	٠	٠	٠	147	5	21
Erysipelas	٠	٠	٠	٠	111	22	14
Gastro-Enteritis	٠	٠	٠		3		
Infectious Serositis .	0				4	1	

	Edmonton	Lethbridge	Fairview
Mulberry Heart Disease	. 28	5	1
Necrotic Enteritis	. 16	1	
Pneumonia	. 131	47	16
Vibrionic Dysentery	. 45	7	6

The major diseases causing death were erysipelas and colibacillosis, both of which are bacterial infections.

Swine dysentery was also a disease of great economic importance although it does not cause as many deaths.

Mulberry heart disease continued to be a significant factor.

Gastric ulcers caused heavy losses in at least one herd.

Poor nutrition and parasites were responsible for very poor production efficiency in many herds.

Poultry

Disease	Edmonton	Lethbridge	Fairview
Air Sac Infection	33	18	3
Arizona Paracolon	23	8	
Ascites & Edema	16	10	
Aspergillosis	22		1
Avian Encephalomyelitis	11		5
Capillaria worms	40	1	2
Coccidiosis	132	21	8
Coliform Septicemia	33	14	
Deficiencies	26	4	12

	Edmonton	Lethbridge	Fairview
Fowl Cholera	. 19	3	1
Leukosis - 1ymphoid	. 139	6	3
- Marek 's	. 349	65	9
Omphalitis			11
Salmonellosis	. 30	2	
Tibial Chondrodystrophy	. 23	3	

While the figures for Marek's disease are increased over last year, the vaccine introduced during the year appears to be quite effective, and should result in a decline in incidence of the industry's major disease problem.

Air Sac Infection in turkeys was less common but we saw infectious sinusitis in older birds for the first time in some years. Arizona paracolon and edema again caused significant losses. There were many cases of coccidiosis mainly affecting in pullet flocks. An encouraging note is seen in the reduction in coli septicemia or CRD diagnoses.

SPECIAL INVESTIGATIONS

Mercury Analysis

Increasing demand for reliable, highly sensitive analytical methods for the quantitative measurement of trace amounts of mercury in the environment has resulted in the development of a flameless atomic absorption photometer for mercury determination. The detection limit of this instrument, 0.2 nanagram mercury, is comparable with that of the best research instrument reported in the literature.

Marek's Disease Vaccine Trials

Marek's disease has caused losses in excess of 30% in some pullet flocks and has been the cause of most serious losses to the poultry industry. A trial of a recently released vaccine was undertaken jointly by the Veterinary Services Division, the Department of Animal Science of the University of Alberta and the Poultry Branch of the Animal Industry Division. All birds which died were examined especially for Marek's disease at the Veterinary Services Laboratory and over 500 sera were sent for further study to Connaught Medical Laboratories. The mortality from Marek's disease over a six month period was 0.89% and 0.67% in vaccinated groups and 5.1% in the unvaccinated controls.

Investigation Into A Suspected New Syndrome In Chicken Broilers

At the request of a feed company an investigation was undertaken to study an alleged new syndrome. Material from affected birds was given by mouth to healthy broiler chickens. A similar number of healthy chickens were kept as controls. Treated and untreated control birds increased in weight at similar satisfactory rates. There was no evidence of disease. Investigation Into Excessive Culls In A Pullet Flock

The cause of excess cull birds in a growing pullet flock is being investigated. Unusual microscopic pathological changes were noted in the intestines. These changes may be permanent since they were present in affected birds kept in the laboratory for a four week period. The cause has not been found in spite of searches for pathogenic bacteria viruses or protozoa. When ground up intestines from infected birds were inoculated by mouth in chickens, their growth rate was depressed compared with uninoculated controls.

Weak Calf Syndrome

Questionnaires were sent to all veterinarians and
livestock branch specialists. From the information in
the returns we selected herds for further investigations.
Twenty-three cattlemen were visited and interviewed.
While a definite diagnosis could not be established in
some cases, the herds were categorized into types of
disease as shown below:

Scours 10
Selenium responsive 4
Other nutritional 3
Viral infection 4
(pre-natal)
Genetic 2

Our work did not substantiate reports of unusually extensive and heavy calf losses.

Osteodystrophy in Lambs

Concentrate-fed lambs may die with a relatively unknown clinical syndrome as a result of very low serum calcium levels. Investigation reveals that early detection of imbalance can be carried out by measuring urine phosphorus. Affected lambs have poor growth and feed efficiency.

Hemophilus Meningoencephalitis in Cattle

A study of the biochemical characteristics of several isolates was carried out.

Copper Deficiency in Cattle

In co-operation with the Federal Research Stations at Beaverlodge and Prince George it was found that levels of copper in feed generally considered deficient are actually adequate for cattle.

White Muscle Disease

The geographical incidence of cases in both aborted calves and lambs and young calves and lambs was mapped and indicated widespread occurrence in Region Seven.

A survey was carried out to determine incidence and significant levels of infestation. Amprolium will be tried next spring as a means of prevention.

Trichinosis

A survey to determine the incidence of trichinosis in Alberta swine, which began in 1970, was completed in 1971. Samples were obtained from 51 abattoirs scattered widely across the province. Eight hundred and thirty-one samples from 594 different farms were collected and submitted to the Veterinary Laboratory for examination. Samples were examined by a press technique and also by digestion. All samples were negative.

In co-operation with the Provincial Laboratory of Public Health, we planned and carried out testing programs for contamination and infection with these bacteria, which are important in both human and animal health.

Fetal Iodine Deficiency

Survey of bovine fetuses from a local packing plant for gross and microscopic evidence of goiter. Approximately 14% of fetuses examined were found to be affected. Gastric Ulcers, Swine

Investigations were made into the nature and significance of gastric fundic hyperemia in swine suffering from a variety of disease conditions.

Neonatal Lung Pathology in the Ovine

The literature was surveyed for information on development, birth changes and diseases of the lung.

Most data were derived from human sources and these were then applied to neonatal ovine lungs which had been collected during a mortality survey at an intensively reared sheep operation near Lethbridge.

Triaryl Phosphate Poisoning

A number of post mortem examinations were made on several field trips in an effort to diagnose this poisoning. Because of the lack of knowledge and description of the condition in cattle a dosage trial has been undertaken for the purpose of determining the neurotoxic dose and describing the neuropathological lesions as they occur in experimental as opposed to field cases of poisoned animals.

Spirochete Involvement In Swine Dysentery

An examination of the flora of the colon of pigs suffering from swine dysentery has revealed the same morphological types as those described in the English and Danish literature. These Spirochetes have been implicated in Swine Dysentery however their significance has yet to be determined.

PUBLICATIONS

- (1) "A Modified Cold Vapor Atomic Absorption Method for the Determination of Mercury" K. I. Strausz and J. E. Roff Report of the Sixth Pesticide Residue Analysis Seminar (Western Canada) 1971.
- (2) "Chlorine Gas Poisoning in Farm Livestock":
 Case Report and Review
 D. W. MacDonald, M. A. Lamoureux, M. Van
 den Brink and G. R. Whenham.
 Can. Vet. Jour. 12:2 February 1971.
- (3) "Listeria Monocytogenes Isolations in Alberta 1951-1970"
 D. W. MacDonald, G. S. Wilton, J. Howell and G. G. Klavano.
 Accepted by Can. Vet. Jour. for publication.

- (4) "Lead Poisoning in Cattle": Brain Lesions and Hematologic Changes R. G. Christian, and L. Tryphonas. American Journal of Veterinary Research, 1971, 32: 203-216.
- (5) "Accidental Intracarotid Artery Injection
 of Promazine in the Horse"
 R. G. Christian, L. L. Kramer, and
 J. H. L. Mills.
 Canadian Veterinary Journal (in press).
- (6) "Tibial Dyschondroplasia in Broiler Chickens in Western Canada"C. Riddell, J. Howell and M. M. Kaye.Avian Diseases, Vol. 15 (1971) 557-565.

CATTLE DISEASES

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Abomasitis Ulcerative	8 11	7 8	1 2	- 1
Abscess B-Staph sp B-Coryne sp B-C-Pyogenes Brain Liver	24 2 2 1 3 9	14 - - 2 5	4 - - - - 1	6 2 2 1 1 3
Anemia Hemolytic	8	2 -	3 -	3 1
Anomaly Cardiac Skeletal	12 2 12	7 - -	1 1 2	4 1 10
Arthritis Coryne Degenerative Fibrinous P-Hemolytica Strep Suppurative	7 1 2 1 1	1 1 - 1	2 - 1 - -	5 1 - 1 1
Bacillary hemoglobinuria	10	1	9	-
Blackleg	28	24	3	1
Bloat	103	46	38	19
Blood Test Negative	1	~		1
Bovine Virus Diarrhea	32	16	12	4
Calculi-Urinary	5	5	-	-
Cardiac Failure	19	6	9	4
Cellulitis	3	***	1	2
Cirrhosis	3	3	-	-
Clostridia inf-B-Cl-novyi	1	-	-	1
Coccidiosis	41	26	7	8
Colibacillosis	151	115	27	9
Colitis	3	1	2	-
Conjunctivitis	2	1	-	1
Cystitis	5	2	1	2
Def-Calcium Magnesium Malnutrition Vit-A	1 3 12 90	1 4 71	1 2 3 18	- 5 1
Dehydration	3	-	-	3

DEPARTMENT OF AGRICULTURE

CATTLE DISEASE (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Dermatitis Bact	8 2	<u>-</u>	6 1	2 1
Displaced Abomasum-right	2	1	1	· -
Dystocia	9	. 3		6
Encephalitis Bacterial Mycotic Viral	12 11 1 6	9 8 - 4	3 3 1 2	- - - -
Endocarditis	6	2	4	-
Enteritis Catarrhal Chronic E-Coli Hemorrhagic Necrotic	67 2 2 90 13 4	62 _1 _2 82 5 3	2 1 1 5 1	3 - 1 8 3
Enterotoxemia	4	2	-	2
Enterotoxemia Type C	1	1	-	-
Eosinophilic myositis	5	1	4	-
Fat Necrosis	. 1	1	~	444
Fibrosis .	1	2	1	_
Fracture	5	1	4	_
Goitre	35	5	28	2
Granulation Tissue	2	1	1	-
Hematoma	1		_	1
Hemaglobinuria	1	-	-	1
Hemorrhage Cerebral	24 1	14,	10	<u>-</u> 1
Hepatitis .	12	6	3	3
Hepatosis	3	3	-	-
Hydrocephalus	7	5	1	1
Hydrops amnii	7,	-	-	1
Hyperkeratosis	3	2	1	_
Hyperplasia-Biliary	1	-	1	-
Hypoplasia-cerebellar	1	-	-	1
Impaction	5	4	ana	1
Inf-Bov-Rhino	44	32	12	_

CATTLE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Intestinal Perforation	2	1	-	1
Intestine Intussusception	1	-	-	1
Johne's Disease	2	2	**	-
Keratitis	4	3	-	1
Laryngitis Necrotic	3 8	1 5	1	1 2
Lightning Stroke	1	-	1	to the same of the
Listeriosis	6	5	1	-
Leucoencephalomalacia	1	1	ww.	-
Malignant Catarrhal Fever	4	1	-	3
Malignant Edema	29	24	3	2
Mastitis	290	139	32	119
Meningitis Bacterial	13 12	11 10	-	2 2
Meningoencephalitis	10	9	-	_ 1
Metritis	11	6	-	5
Myiasis	1	-	40	1
Mycosis .	3	2	<u>-</u>	1
Myocarditis	4	3	ı	
Myopathy Nutritional	53 118	49 103	3 2	1 13
Myositis	5	3	2	-
Necrobacillosis	8	4	4	-
Necrosis of the Extremities	4	3	· ·	1
Neo-Natal Diarrhea	37	4	-	33
Nephritis	31	22	4	5
Nephrosis	6	5	-	1
Neoplasms (see table for details)	74	44	25	5
Parainfluenza	2	-	-	2
Pasteurellosis	61	59	2	-
Pediculosis	2	2	~	· · ·
Pericarditis	7	3	2	2
Peritonitis	28	1,4	1	13

CATTLE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Pleuritis	3	2	-	1
Polioencephalomalacia	41	30	11	-
Pneum-Atypical Interstitial Bacterial Broncho Fibrinous Granulomatous	97 29 74 67 12	53 25 63 34 11	27 3 - 22 1	17 1 11 11
Inhalation Interstitial Parasitic Suppurative Viral Unclassified	6 38 8 9 11 34	3 34 7 4 5	3 1 2 3	3 1 - 3 3 3 34
Pneumothorax	1	-	_	1
Pulmonary Edema	16	5	7	4
Pulmonary Embolism	1	-	-	1
Pyelonephritis	6	2	4	-
Pyometra	1	1	-	_
Parasites (see table for details)	54	15	6	33
Rumen Overload	11	5	2	<i>L</i> ₄
Rumenitis Mycotic	7 4	4 1	2 1	1 2
Rupture-Aortic Bladder Esophagus Stomach Uterus	1 4 1 1	- - 1	1 3 1 -	1 - - 1
Salmonellosis	13	7	6	-
Septicemia B-Strep A. hemo P-Hemolytica	46 1 1	19 - -	26 - -	1 1 1
Shock	2	1	-	1
Simusitis	2	1	-	1
Starvation	5	5	-	-
Steatitis	1	_	1	-
Stillborn	18	_	16	2
Streptococcosis	4	4	-	-
Suitable-Animals	2	1	1	_
Suitable for Human Use	27	26	-	1

ANNUAL REPORT, 1971

CATTLE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Synovitis	1	1	-	-
Testicular hyoplasia	1	-	-	1
Thrombo-Embolic-Meningoenc	10	6	4	-
Torsion—Abomasum Intestinal Mesenteric Stomach	2 4 5 2	1 3 1 1	1 2 1	1 - 2 -
Toxicity (see table for details)	84	57	17	10
Tracheitis	3	3		** *
Trauma	20	8	. 5	7
Traumatic Reticulitis	8	3	1	<i>L</i> ₊
Umbilical Infection	30	19	1	10
Unsuitable-Animals	16	2	9	5
Unsuitable for Human Use	. 23	20	3	-
Uremia	1	1	-	-
Urethral Obstruction	2	-	1	1
Vibriosis (see table for details)	20	11	5	4
Winter Dysentery	1		- ,	1
Lab Exams Neg	398	250	126	22
No Diagnosis	410	340	52	18
Specimen Unsuitable	41	25	6	10
TOTALS	3601	2287	717	597

SWINE DISEASES

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Abscess Brain Cervical	13 3 2	7 - 1	4 3 -	2 -
Anemia	35	11	18	6
Anomaly Cardiac	1		- -	1
Arthritis Bacterial Degenerative Suppurative Staph Strep	9 2 3 3 3 3	2 2 3 2 1	3 - - 1 1	4 - - 1 2
Atrophic Rhinitis	39	28	5	6
Asphyxiation	4	1	-	3
Anaphylaxis	1	1	-	-
Atelectasis	1	1	-	-
Calculi-Urinary	1	1	-	-
Cannibalism	1	-	1	-
Cardiac Failure	3	-	2	1
Clostridia Inf	1	-	-	ı
Colibacillosis	170	106	63	1
Colitis	5	5	-	~
Cystitis	2	1	1	-
Decomposed	1	1	-	-
Def-Malnutrition Vit-A	9 2	5 1	- -	4 1
Dehydration	1	1	-	-
Dermatitis	5	2	3	-
Dystocia	3	1	1	1
Edema Disease	13	11	1	1
Electrocution	1	-	1	-
Emaciation	2	-	2	-
Encephalitis Bacterial Viral	5 2 28	- 1 25	5 1 3	-
Endocarditis	9	1	3	5

SWINE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Endometritis	1	-	-	1
Enteritis Bacterial Chronic E-Coli Hemorrhagic Necrotic Nutritional	74 2 3 104 2 21 17	52 1 - 71 1 16 17	3 1 1 - 1	19 - 2 33 1 4
Fatty Metamorphosis	1	1	-	-
Fibrosis	1	1	-	-
Fracture	2		2	-
Gastritis	2	1	-	1
Gastroenteritis	2	2	-	-
Goitre	2	-	1	1
Greasy Pig Disease	28	13	13	2
Heat Prostration	2	-	2	-
Hemorrhage	10	8	2	-
Hernia Abdominal Diaphragmatic Scrotal	1 3 1 1	1 1 1	1 -	ī Z
Hepatic necrosis	1	-	-	1
Hepatitis Necrotic	1	2	Ī	1 1
Hepatosis	7	6	1	-
Hyperkeratosis	1	-		1
Hyperemia	1	ı	-	-
Hypoglycemia	1	1	-	-
Impaction	1	1	-	-
Inclusion Body Rhinitis	2	-	-	2
Inflammation	3	3	-	-
Intestinal Perforation	1	-	-	1
Malignant Edema	2	2	-	-
Mange Sarcoptic	17	6	4	7
Mastitis Coliform Staphylococcus Streptococcal	1 3 1 1	1 - - 1	- 3 1	-
Meningitis Bacterial	6 6	3 4	1 2	2 -

SWINE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIEW
Meningoencephalitis	5	5	-	-
Metritis	8	5	2	1
Mismanagement	3	-	3	-
Mulberry Heart Disease	34	28	5	l
Myocarditis	3	3	-	-
Myoclonia Congenita	2	-	2	-
Myopathy Nutritional	10 4	9 4	-	1 -
Neo-Natal Diarrhea	5	2	-	3
Neoplasms (see table for details)	5	4	1	-
Nephritis	6	4	2	-
Nephrosis	1	-	1	-
Osteodystrophy	12	4	3	5
Osteomyelitis	1	1	-	-
Osteoporosis	2	2	-	-
Otitis Media	1	-	1	-
Parasites (see table for details)				
Pasteurellosis	35	35	-	-
Pericarditis	4	3	-	1
Peritonitis	7	2	3	2
Pleuritis-Suppurative	1	-	-	Ţ
Pityriasis Rosea	3	3	-	-
Pneumonia	74	34	39	1
Pneum-Bacterial Broncho Enzootic Fibrinous Inhalation Interstitial Parasitic Suppurative Viral	20 39 25 3 1 6 2	20 30 16 2 - 6 -	- 4 1 1 -	- 9 5 - - 1 1
Polioencephalomalacia	1	1	-	-
Polyserositis	10	7	2	1
Poisoning (see table for details)	18	14	2	2
Porcine Stress Syndrome	1	~	-	1

SWINE DISEASES (continued)

DISEASE	TOTAL	EDMONTON	LETHBRIDGE	FAIRVIE
Prolapse	1	-	1	_
Pulmonary Edema	2	2	_	_
Rhinitis	6	4	2	-
Rickets	5	2	1 ,	2
Rupture Stomach Uterus	3 1 1	- - -	3 1 -	- - 1
Salmonellosis	8	6	1	1
Satisfactory	5	2	1	2
Septicemia	33	19	8	6
Shock	1	1	_	_
Specimen Unsuitable	7	4	_	3
Spraddle Leg	1	1	_	_
Staphylococcosis	1	1	-	_
Starvation	1	1	_	_
Streptococcosis	4	-	4	_
Suitable for Human Use	13	13	- ,	-
Swine Dysentery	82	46	30	6
Torsion-Intestinal Mesenteric	5 13	4 1	12	1 -
Transmissible Gastroenteritis	1	1	600	-
Trauma	16	6	6	4
Tuberculosis	1	1	•	-
Ulcer Gastric	2 12	1 -	1 11	<u>-</u> 1
Umbilical Infection	4	4	-	-
Unsatisfactory	2	2	-	-
Unsuitable for Human Use	10	7	3	_
Vaginitis	1	1	-	-
Vegetative Endocarditis	2	1	-	,1
Lab Exams Neg	61	38	17	, 6
No Diagnosis	140	110	15	15
No Visible Lesions	6	3	3	-
TOTALS	1532	968	354	210

OVINE DISEASES

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Abomasitis	3	1	1	1
Abortion-bact brucella corynebacterium idiopathic other vibrio	1 1 5 3	- - - -	1 1 - 2 1 2	- 1 3 2
Abscess	11 2	6 -	2 2	3 -
Anaphylaxis	2	1	1	-
Anemia	2	1	1	-
Anomaly skeletal	1 2	-	1 2	-
Arthritis	2	-	2	-
Asphyxiation	1	••	l	-
Bloat	10	-	L ₊	6
Brucellosis	1	-	1	-
Cardiac Failure	2	1	-	1
Coccidiosis-intestinal	4	4	**	-
Colibacillosis	16	8	-	8
Conjunctivitis	2	-	2	-
Contagious Ecthyma	6	1	5	-
Decomposed	1	-	-	1
Def-malnutrition vit A	7 2	- -	7 1	ī
Dehydration	1	-	1	-
Dystocia	2	1	l	-
Edema	1	-	-	1
Emaciation	1	-	~	1
Encephalitis bact	2 4	2 4	-	-
Encephalomyelitis	2	2	-	-
Encephalomalacia	3	1	-	2
Enteritis bact E-coli hemorrhagic	12 3 9 2	9 1 7 2	1 - 2 -	2 2 - -
Entertoxemia Type D	4	1	3	-

OVINE DISEASE (Continued)

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Experimental	1	-	1	-
Fracture	1		1	-
Gastric Ulcer	2	1	1	-
Goitre.	2	1	-	l
Gunshot	3	1	-	2
Hemorrhage	2	-	-	2
Hernia-Diaphragmatic	1	1	-	-
Hepatitis	3	3	-	-
Hepatosis	2	2	-	-
Impaction	2	1	-	1
Leukoencephalomalacia	1	-	-	1
Listeriosis	9	6	3	-
Malignant Edema	2	2	-	-
Mastitis staphylococcal	5 1	1 -	2	2
Meningitis bacterial	5 4	2 1	2 2	1
Meningoencephalitis	2	2	-	-
Metritis	3	1	-	2
Myopathy	2	2	-	-
Myopathy Nutritional	7	3	3	1
Mummified Fetus	2	-	-	2
Neo-Natal Diarrhea	3	-	3	~
Nephritis	2	1	-	1
Nephrosclerosis	1	-	1	-
Obstruct-intestinal	1	-	1	-
Omphalitis	2	-	2	-
Omphalophlebitis	1	1	-	-
Orchitis	1	-	-	1
Osteodystrophy	4	-	3	. 1
Osteoporosis	2	-	1	1
Pancreatitis	1	-	1	-
Pasteurellosis	18	18	-	~

OVINE DISEASES (Continued)

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Pericarditis	1	-	-	1
Peritonitis	2	-	2	-
Photosensitization	1	-	-	1
Pleuritis	3	-	2	1
Pneumonia bact broncho inhalation	15 1 11 2	- - -	2 10 1	13 1 1
Polioencephalomalacia	7	3	2	2
Pregnancy Toxemia	2	2	-	-
Prolapse-vagina	2	-	2	-
Pseudomoniasis	1	1	-	-
Pyelonephritis	2	-	-	2
Rabies Negative	1	1	~	-
Rickets	4	2	2	-
Rumen Dysfunction	2	2	-	-
Rumen Overload	5	2	3	-
Rumen Stasis	1	ı	-	-
Rumenitis	3	_	3	-
Rupture-stomach	3	1	1	1
Salmonellosis	2	-	-	2
Satisfactory	1	-	-	1
Septicemia	13	8	3	2
Specimen Unsuitable	1	-	1	_
Starvation	3	3	-	-
Staphylococcosis	1	1	-	-
Stress	2	2	-	-
Tetanus	1	1	-	-
Traumatic Gastritis	12	5	6	1
Torsion-mesenteric	2	2	-	-
Toxemia	1	1	-	-
Umbilical Infection	2	2	-	-
Urethral Obstruction	2	-	1	1
Urinary Calculi	3	1	1	1

ANNUAL REPORT, 1971

OVINE DISEASES (Continued)

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Vegetative Endocarditis	1	-	1	-
Lab Exams Neg	16	8	7	1
No Diagnosis	29	15	7	7
No Visible Lesions	5	2	2	. 1
No Test	1	1	-	
TOTALS	411	170	135	106

EQUINE DISEASES

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Abortion-bact idiopathic	1 3	-	-	. 1
Abscess	5	4	-	1
Actinobacillosis	1,	-	-	1
Anemia-Equine Infectious	2	1	1	-
Aneurysm .	1	.1		.
Arthritis	3	2	1	-
Cardiac Failure	1	-	-	1
Colibacillosis	2	-	-	2
Colitis	2	1	-	, 1
Colitis X	2	-	-	2
Conjunctivitis	1	-	1	-
Cyst-epidermoid	1	1	-	-
Def-malnutrition	1	-	1	-
Dermatitis-bact	1	4	-	1
Dermatomycosis	2	1	-	1
Encephalitis bact	1	-	ī	1 -
Encephalomalacia	1	1	-	-
Enteritis chronic E-coli	2 1 1	2	- - 1	_ 1 -
Fatty Metamorphosis	1	1	-	-
Fracture	1	-		1
Goitre	2	-	1	1
Granulation Tissue	1	-	1	-
Hemorrhage	2	1	-	1
Hepatitis	1	1	_	thes
Inflammation	13	12	-	1
Intestinal Perforation	1	_	-	1
Intussusception	1	1	-	-
Keratitis	1	1		-
Laminitis	1	1	-	-
Myco-Trichophyton mentagrophy	2	2	-	-

EQUINE DISEASES (Continued)

DISEASE	TOTAL	EDMONTON	FAIRVIEW	LETHBRIDGE
Myocarditis	1	1	es.	-
Omphalitis	1	-	1	-
Osteomyelitis	1	-	-	. 1
Paralytic Ileus	1	-	1 .	
Peritonitis	2	1	1	-
Pleuritis	1	1	-	-
Pneumonia bact broncho fibrinous inhalation	2 1 1 1	- 1 1 1	2 - - -	
interstitial	1	1	-	-
Septicemia	3	2	40-	1
Shigellosis	2	2	-	e e
Specimen Unsuitable	5	4	1	
Stillborn	1	-	-	1
Strangles	1	1	-	~
Strongyloidosis	3	3	-	-
Torsion-intestinal . mesenteric	2 1	-	2	ī
Trauma	2	-	2	-
Typhlitis	1	-	-	1
Vaginitis	1	1	400	-
Western Equine Encephalitis	2	2		-
Lab Exams Neg	46	28	2	16
No Diagnosis	25	19	4	2
No Test	9	2	-	7
No Visible Lesions	1	1	-	-
TOTALS	182	107	24	51

CANINE and FELINE DISEASES (Fairview & Lethbridge included)

DISEASES	CANINE	FELINE
Abortion-idiopathic	-	1
Abscess	2	2
Amyloidosis	1	-
Anal Gland Infection	1	
Anaphylaxis	2	2
Anemia infectious	2	4
Anomaly	2	-
Calcinosis circumscripta	3	-
Cardiac Failure	15	4
Cellulitis	2	-
Cirrhosis	1	~
Coccidiosis-intestinal	2	-
Colibacillosis	3	-
Colitis	< 1	1
Conjuctivitis	3	3
Congenital Defect	6	2
Cyst epidermoid sebaceous	4 12 1	= =
Cystitis	4	11
Decomposed	5	-
Degeneration	2	-
Dermatitis bacterial	14 5	2 -
Dermatomycosis		1
Diabetes	3	1
Edema	1	-
Emaciation	1	-
Encephalitis strep viral	2 1 -	- 1
Encephalomalacia	2	-
Endocardiosis	2	-
Endocarditis	1	-

CANINE and FELINE DISEASES (Continued)

DISEASES	CANINE	FELINE
Enteritis E-coli hemorrhagic	9 2 -	4 - 2
Fatty Metamorphosis	1	
For Culture	4	2
For Hematology	6	_
For Identification	1	_
Fracture	1	1
Gingivitis	-	2
Glossitis	2	_
Granulation Tissue	L ₊	1
Gunshot Wound	3	_
Heat Prostration	1	_
Hemorrhage	16	7
Hepatic necrosis	1	1
Hepatitis Infectious Canine toxic unknown viral	18 2 2 3	1
Hepatosis	_	1
Hernia-Diaphragmatic	3	4
Hip-Dysplasia	1	
Hyperkeratosis	_	1
Hyperplasia endometrial	5 -	
Hypothydroidism	1	-
Icterus	1	1
Impaction-bowel		1
Infectious Feline Peritonitis	-	1
Inflammation	17	4
Intervertebral Disc Hernia	1	
Keratitis	3	-
Mange-demodectic	2	-
Mastitis-streptococcal	1	-
Meningitis	1	1

CANINE and FELINE DISEASES (Continued)

DISEASES	CANINE	FELINE
Meningoencephalitis	3	1
Metritis	5	1
Myco-Alternaria sp	1	_
Microsporum canis	2	-
Rhizopus sp	1	_
sp	1	-
Trichophyton mentagrophyt Yeast	1 2	1
Teast	د د	_
Mycosis	14	-
Myocarditis	1	-
Necrosis	-	1
Nephritis	17	8
Nephrosclerosis	1	1
Nephrosis	5	7
Obstruct_intestinal	3	-
Osteodystrophy	1	-
Otitis	44	2
externa	41	3
media	1	-
Pancreatic Hypoplasia	1	-
Pancreatitis	14	2
Panleukopenia	-	60
Panophthalmitis	-	1
Paralysis	-	1
Pericarditis	1	-
Peritonitis	7	5
Pleuritis	-	1
Pneumonia	7	2
bacterial	i	2
broncho	2	1
granulomatous	1	_
inhalation	1	2
viral	1	1
Prostatitis	1	-
Pulmonary Edema	1	-
Pyelonephritis	1	1
Pyometra	1	1
Rabies Negative	6	3

ANNUAL REPORT, 1971

CANINE and FELINE DISEASES (Continued)

DISEASES	CANINE	FELINE
Rhinitis	3	2
Ringworm	7	3
Rupture-bladder liver stomach	- 3 1	1 1 . 1
Salmonellosis	***	1
Septicemia	8	2
Shock	1	, 1
Sinusitis	1	-
Specimen Unsuitable	6	2
Staphylococcosis	2	-
Streptococcosis	1	-
Thrombus	2	-
Torsion-intestinal mesenteric stomach	1 2 2	- - -
Trauma-hemorrhagic	1	-
Tympanites	_	. 1
Ulcer-gastric	1	-
Uremia	2	2
Urinary Calculi	12	1
Vaginitis	1	-
Virus-unclassified	1	-
Lab Exams Neg	121	44
No Diagnosis	68	36
No Test	1	-
No Visible Lesions	7	2
TOTALS	663	280

FUR-BEARING ANIMALS (Fairview & Lethbridge included)

DISEASE	CHINCHILLA	MINK
Abscess	2	-
Aleutian Disease	-	12
Anomaly	1	-
Ascites	1	-
Cardiac Failure	1	-
Colibacillosis	1	-
Colitis	1	-
Cystitis	-	1
Distemper	~	2
Dystocia	1	***
Enteritis	6	-
Gastritis	1	-
Gastro Enteritis	1	1
Giardiasis	10	_
Gingivitis	1	-
Hydrothorax	1	-
Impaction	6	-
Keratitis	1	-
Listeriosis	2	-
Malocclusion	3	_
Metritis	6	-
Mismanagement	1	-
Necrobacillosis	-	1
Nephritis	2	-
Nephrosis	2	-
Nursing Sickness	-	2
Pasteurellosis	-	3
Pneumonia	9	2
Proteus infection	2	-
Pseudomonas infection	14	1
Pseudotuberculosis	2	_

ANNUAL REPORT, 1971

FUR-BEARING ANIMALS (Continued)

CHINCHILLA	MINK
1	_
-	1
1	2
1	_
2	_
2	_
1	, -
1	_
-	5
3	3
. 4	_
15	1
1	-
107	37
	1 1

LABORATORY ANIMALS (Fairview & Lethbridge included)

DISEASE	GERBIL	GUINEA PIG	HAMSTER	MOUSE	RABBIT	RAT
Abscess		1	44112	110000	AUDIOL I	2412
Anemia		1				
Anoxia		<u>+</u>		1		
				T		,
Asphyxiation						1
Coccidiosis-intesti					1	
Colibacillosis	2	1		Ţ		
Colitis					1	
Congenital Defect				1		
Cystitis					1	
Def-malnutrition vit C		1 2				
Dermatitis					1	
Enteritis E-coli	6	6	3 2	4	7	
hemorrhagic nutritional ulcerative		1	2			1
Encephalit-bact				1		•
Fracture		2				
Hernia		~	2			
Hemorrhage		1	~	1	1	1
		Τ.		1		Т
Hepatitis					1	
Impact-bowel			1			
Mange-sarcoptic				1		
Metritis	*	2			1	
Myiasis		1				
Pasteurellosis		1	1	1	1	5
Peritonitis	1					
Pneumonia bacterial	2	4		1	3	
broncho parasitic		2		4	1	3
Pregnancy					2	
Rabies Negative				2		
Septicemia	1	1	1		1	

LABORATORY ANIMALS (Continued)

DISEASE	GERBIL	GUINEA PIG	HAMSTER	MOUSE	RABBIT	RAT
Specimen Unsuitable	>		1	1		
Torsion-intestinal			2			
Toxemia					1	
Trauma					2	
Unsuitable for Huma	ın Use				1	
Uremia						1
Lab Exams Neg	3	1		1	′ 2	2
No Diagnosis	1	5	1	3	8	
No Test					2	
TOTALS	16	34	14	20	38	14

WILDLIFE DISEASES (Fairview & Lethbridge included)

DIAGNOSIS	TOTAL
Abex Pasteurellosis Pneum-bacterial	1
Antelope Emaciation Decomposed No Diagnosis Trauma	1 1 3 6
Badger Pneum-broncho	1
Bat Rabies Negative	63
Bear Encephalitis Lab Exams Neg	1 3
Beaver Tularemia	1
Biesa Oryx Trauma	1
Bighorn Sheep Contagious Ecthyma Lab Exams Neg Pneumonia Pneum-parasitic Salmonellosis	1 2 1 2
Buffalo Arthritis No Diagnosis Starvation Torsion-intestinal	1 1 1 1
Camel Lab Exams Neg	2
Caribou Colibacillosis	1
Coatimundi Panleukopenia	1
Coyote Distemper Enterit-hemorrhagic Experimental Lab Exams Neg Mange Starvation Trauma	2 1 1 8 2 2 8
Dahl Sheep Coccidiosis—intestinal Colibacillosis Myopathy No Diagnosis Septicemia	1 1 1 1

WILDLIFE DISEASES (Continued)

DIAGNOSIS	TOTAL
Lynx No Diagnosis	2
Monkey Enterit-hemorrhagic Heat Prostration Hemorrhage Hyperthermia Lab Exams Neg Meningitis-bacterial No Diagnosis Trauma	1 1 3 3 1 1 2
Moose Catarract Def-malnutrition Enterit-E-Coli Foot Rot For Identification Lab Exams Neg Malignant Edema No Diagnosis Panophthalmitis Satisfactory Suitable for Human Use Urinary Calculi	1 1 2 2 1 4 1 1 1 1 4 21 21 2
Mountain Goat Lab Exams Neg	1
Mule Deer Abscess—liver Arthrit—suppurative	1
Pika Hemorrhage Lab Exams Neg No Diagnosis Septicemia	1 1 1
Raccon No Diagnosis	2
Reindeer Pneum-parasitic	1
Rocky Mountain Goat Enterit-E-Coli Pasteurellosis	1
Shrew Rabies Negative	1
Skumk Lab Exams Neg Rabies Negative Rabies Positive	7 12 ,1
Snake Colibacillosis Def-malnutrition Enterit-ulcerative Lab Exams Neg Rabies Negative Salmonellosis Septicemia	1 1 1 8 1 2

WILDLIFE DISEASES (Continued)

DIAGNOSIS	TOTAL
Deer Abscess-brain Emaciation Enterit-hemorrhagic Lab Exams Neg Myopathy No Diagnosis Peritonitis Rabies Negative Suitable for Human Use Trauma	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Elephant Inflammation	1
Elk Fatty Metamorphosis Lab Exams Neg Myopathy Specimen Unsuitable Suitable for Human Use	1 1 2 1
Fish Encephalomalacia Lab Exams Neg No Test Pseudomoniasis Suitable for Human Use	1 2 1 1 3
Fox . Lab Exams Neg	1
Gopher Rabies Negative	2
Hippopotamus Lab Exams Neg Impaction Starvation Ulcer-abomasal	4 2 1 1
Iguana Lizard Enterit-E-Coli Pseudomoniasis	1
Jack Rabbit Coccidiosis—intestinal Emaciation Hepatitis Lab Exams Neg Metritis No Diagnosis Pasteurellosis Preumonia Pneum-parasitic Trauma	1 3 3 1 1 1 2
Lemming Necrosis No Diagnosis Pseudomoniasis Septicemia	1 4 1

WILDLIFE DISEASES (Continued)

DIAGNOSIS	TOTAL
Squirrel Lab Exams Neg No Diagnosis Fneumonia Rabies Negative	1 1 1 3
Wapiti Arthritis Starvation	1
Wild Rabbit Bronchitis Coccidiosis-hepatic Colibacillosis Colitis Enteritis Enterit-chronic Gastric Ulcer Impaction Nephritis No Diagnosis Pasteurellosis Pneumonia Pneum-interstitial Typhlitis	1 1 1 3 1 1 1 4 2 2 2
Wolf Lab Exams Neg Rabies Negative	2 1
TOTAL	323

FETUS EXAMINATIONS

	Bovine	Porcine	Ovine	Equine	TOTALS
Brucella	1	0	0	0	1
Coliform	4	0	0	0	4
Corynebacterium	33	1	1	0	35
Erysipelas	0	4	О	0	4
Listeria	7	0	0	0	7
Pasteurella	5	0	0	0	5
Pseudomonas	3	0	0	0	3
Staph & Strep	24	1	0	1	26
Vibrio	11	0 -	2	0	13
B.V.D.	11	0	0	0	11
E.V.R.	0	0	0	4	4
I.B.R.	245	0	0	0	245
S.M.E.D.I.	0	4	0	0	4
Mycosis	31	0	0	0	31
Myopathy Nutritional	2	0	1	0	3
Malnutrition	5	0	4	0	9
Hydrocephalus	6	0	0	0	6
Congenital Defect	50	2	2	0	54
Mummified	19	0	0	0	19
Dystocia	11	0	2	0	13
No Diagnosis	543	48	49	12	643
Other *	4	0	0	1	5
TOTALS	1006	60	61	18	1145

^{*} Bacteria - 3, Toxic - 1, Traumatic - 1

		% Rejected	3.31	1.70	.29	1.68
Totals	3,520	Rejected Diseased	4,654 19,828 291 65	24,838	88	24,933
स्	W W	Change % of 1970	+ + + + 3.64 32.02 1.12	+ 7.12	+ 16.38	+ 7.13
#된 ::	n n	1970 Inspected	751,175 578,159 25,085 9,558	1,363,977	13,141	1,380,381
"D"	3,464	1971 Inspected	819,272 599,193 33,116 9,547	,461,128	15,294	1,478,801
Type of Stockyard	Number of Stockyards	Type of Stockyard	"D" Cattle Swine Sheep Horses	("E" Cattle	
	,	Stockyards 3,464 53 3 3	Stockyards	Stockyards	Stockyards	Stockyards

CATTLE

Reasons for Rejection - Class "D", "E", and "F" Stockyards

	1 9 6 Rej.	L %	1 9 Rej.	8 %	1 9 Rej.	0 %	1 9 Rej.	0%	1 9 Rej.	7 1 %	
	C	1 30	r.	1 40	40	- 94	71	1.63	71	1.4	49
Austess	000	1 - 20	44	1,16	59	1.38	93	2.13	63	1.3	33
At cirrings	708	19,30	745	19,69	825	19,35	874	20.04	774	16.29	59
Dormatitis) LC	13	20	.53	10	.23		.02	22	4.	46
Enteritis	308	8,40	366	9.67	471	11.05	136	3.11	135	2.8	98
FOOTROT	42	1.14	38	1.03	53	1.24	20	1.15	51	1.0	07
) (i i	95	2.50	99	1.74	24	• 56	25	.67	45	01	97
Tarme Taw	492	13.40	478	12,63	374	8.77	311	7.13	302	9	35
Mastitis	453	12.30	386	10.20	393	9.22	343	7.87	330	0.0	95
Metritis	10	.27	10	.26	31	. 73	11	.25	31	٠	64
Naval Thfection	97	2.60	75	1.98	66	2.32	172	3,95	94	1.00	98
Pink-Eve	219	5.97	104	2,75	209	4.90	125	2.97	273	5.1	75
Prejimonia	244	6.66	284	7.51	340	7.97	525	12.04	812	17.1	10
Ripognorm	143	3.90	164	4.32	115	2.70	70	1.24	94	1.00	97
Sporticemia	23	.62	13	.34	43	1.01	57	1.30	99	-1	39
Shipping Fever	83 (2.26	28	1.53	120	2.81	100	2.29	228	4.8	82
Inder Age	50	1.36	110	2,90	89	1.60	25	.67	25		53
Warts	52	1,41	66	2,62	72	1.69	82	1.88	31	•	64
Other Diseases	532	14.50	671	17.74	918	21.53	1289	29.66	1302	27.4	41
TOTALS:	3,663	66.66	3,784	100.00	4,264	100.00	4,360	100.00	4,749	100.00	00

Reasons for Rejection - Class "D" Stockyards

	1 9 6 Rej.	L %	1 9 6 8 Rej. %	1969 Rej. %	1 9 7 0 Rej. %	1 9 7 1 Rej. %
Arthritis Dermatitis Enteritis Enteritis Erysipelas Glasser's Disease Mange Mange Pneumonia Rhinitis Swine Pox Underweight Worms Other Diseases	6 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 9 9 9	8.46 5.33 7.08 .53 .51 36.39 5.37 26.22 .67 .1.62	803 6.45 424 3.40 583 4.67 26 .21 134 1.08 2796 22.44 520 23.45 520 23.45 52	641 4.95 185 1.43 368 2.84 31 .24 31 .25 41 .32 1989 15.35 314 2.42 2687 20.74 2687 20.74 2687 20.74 2687 20.74 2687 20.74	784 4.42 249 1.40 394 2.22 62 01 70 39 3601 20,33 502 2.83 3731 21,12 20 6618 37,36 194 1.10	1113 5.61 85 .43 390 1.98 79 1.98 79 2.4 3053 15.40 710 3.59 6085 30.69 169 34.06 6752 34.06 130 .67
TOTALS:	8,220	66*66	12,459 100.00	12,958 100.00	17,710 100.00	19,828 100.00

SHEEP Reasons for Rejection - Class "D" Stockyards

	1967 Rej. %	1 9 6 8 Rej. %	1969 Rej. %	1 9 7 0 Rej. %	1 9 7 1 Rej. %
Abscess				2 .32	
Enteritis Footrot Keratitis	1 11.11 2 22.22		36 97.30	594 94.59 1 .16	103 35.39
Lungworms		46 92.00			
Pink Eye Pneumonia Other Diseases	1 11.11 5 55.55	3 6.00	1 2.70	8 1.27 23 3.66	184 63.23
TOTALS:	66.66 6	50 100.00	37 100.00	628 100.00	291 100.00

H O R S E S
Reasons for Rejection - Class "D" Stockyards

	1967 Rej. %	1 9 6 8 Rej. %	1969 Rej. %	1 9 7 0 Rej. %	1971 Rej. %
Arthritis Influenza		, 14 90	1 2.86 3 8.57	8 21.55 4 11.23	34 52.30 3 4.62
Pneumonia Strangles	17 62.96	7 50.00	26 74.29		6 9.23
Warts Other Diseases	1 3.70 8 29.63	5 35.71	5 14.28	5 14.18	22 33.85
TOTALS:	27 99.99	14 100.00	35 100.00	35 100.00	65 100,00

CHICKEN DISEASE TABLE

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Abscess	6	1	*	7
Acariasis	4	44	••	. 4
Air sacculitis	6	3	8	17
Ammonia burn	4	-		4
Amyloidosis	1	**		1
Anemia	2	3	1	6
Arizona inf	2	-	en	2
Arthrit-bacterial	2	-	**	2
Arthrit-staph	4	1	1	6
Arthrit-strep	1	-	800	1
Arthritis	1	-	1	2
Ascaridiasis	24	10	12	46
Ascites	1	-	7	8
Aspergillosis	13	1	~	14
Asphyxiation	6	•	1	7
Bluecomb	2	-	2	4
Breast blister	2	-	-	2
Bronchitis	-	-	1	1
Bumblefoot	1	-	-	1
Caged layer paralysis	8	-	-	8
Cannibalism	57	5	5	67
Capillariasis	40	2	1	43
Cardiac failure	1	2	-	3
Catarract	1	-	-	1
Cellulitis	-	-	1	1
Cestodiasis	-	-	1	1
Chondrodystrophy	19	-	3	22
Chronic respiratory disease	7	00	1	8

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Cirrhosis	4	-	-	4
Clostridia inf	2	-	-	2
Coccidios cecal	11	1	8 .	20
Coccidios intestinal	121	6	13	140
Colibacillosis	157	-	1	158
Coligranuloma	19	•	′ •	19
Colisepticemia	30		14	44
Congenital defect	2	••	-	2
Conjunctivitis	1	-	-	1
Corneal opacity	1	-	-	1
Corneal ulceration	. 4	-		4
Cyst	**	-	1	1
Decomposed	•	M4	1	1
Def-malnutrition	5	6	90	11
Def-nonspecific	3	-	• .,	3
Def-vit A	13	3	2	18
Def-vit B complex		1	-	1
Dehydration	8	1	10	19
Dermatitis	2	•	•	2
Edema	2	-	-	2
Eggbound	1	60	-	1
Emaciation	5	-	4	9
Emphysema	•	-	1	1
Encephalit-avian	11	5	-	16
Encephalitis	1	3	1	4
Encephalomalacia	2	-	1	3
Endocarditis	7	••		. 7
Enterit-E-Coli	40	40	-	40
Enterit-necrot	27		11	38

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Enterit-transmissible	pe pe	top.	4	4
Enterit-ulcerative	5	-	₩ .	. 5
Enterit-unknown	5	-	-	5
Enteritis	80	2	19	101
Enteritis catarrhal	16	~	2	1 18
Erysipelas	2			. 2
Experimental	61 ,	-	· , .	61
Fatty kidney syndrome	1	~	. -	. 1
Fatty liver syndrome	52	1	6	59
Fatty metamorphosis	10	-	1	11
Feathering poor	2	-	•	2
For identification	1	-	-	1
Fowl Cholera	18	1	•	. 19
Fracture	4	1	-	5
Gizzard erosion	11	-	3	14
Gizzard impaction	6	-	1	7
Gizzard necrosis	5	-	-	5
Gizzard perforation	4	1	• .	5
Gout	2	-	4	6
Gout-visceral	73	•	-	73
Hematoma	3	-	-	3
Hemorrhage	14	-	-	14
Hemorrhage disease	13	•	9	22
Hemorrhagic liver syndrome	2	-	-	2
Hepatic necrosis	12	1	1.	. 14
Hepatitis	3	4	1	8
Hepatitis-bacterial	2	-	•	2
Hepatitis-inclusion body	2	-	•	2
Hepatitis=unknown	3	-	-	3

ANNUAL REPORT, 1971

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Hepatitis-vibrionic	2	-	60	2
Hernia⊷abdominal	•	1		1
Histomoniasis	6	-	-	6
Hysteria	1	**	80	1
Impact-oviduct	5	-	••	5
Impaction	1	-	1	2
Improper debeaking	3	_	•	3
Inf-bronchitis	4	1	2	7
Inf-coryza	1	-	-	1
Inf-synovitis	-	-	1	1
Inf-yolk sac	38	-	-	38
Intestinal impaction	1	-	-	1
Intestinal perforation	2	-	-	2
Intussusception	2	-	-	2
Keratitis	•	-	1	1
Keratoconjunctivitis	3	-	••	3
Kinky back	7	3	-	10
Lab exams neg	82	3	32	117
Leg weakness	5	-	•	5
Leukosis-erythroblastosis	1	80	-	1
Leukosis-lymphoid	136	3	9	148
Leukosis-myelogenous	2	-	-	2
M-gallisepticum	4	-	00	4
M-synoviae	1	-	•	1
Mareks dis~gen	292	2	64	358
Mareks dis•neural	57	7	-	64
Meningitis	1	•	•	1
Misc Lab findings	1	-	-	1
Mismanagement	•	1	17	18

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRI DGE	TOTAL
Moniliasis	2	-	•	2
Myco-geotricum candidum	1	•	·	1
Myco-mucor sp	1	-	~	1
Myocarditis	2	-	46	2
Myopathy	9	1	1	11
Mycoplasma sp	4			4
Myositis	-		1	. 1
N-Adenoc	2	~	1	3
N-Adenoc-biliary	1	40	w	1
N-Adenoma ovary	2	~	•	2
N-Carcinoma	2	1	•	3
N-Embryonal nephroma	10	-	-	10
N-Fibrosarcoma	2	~	po.	2
N-Hemangioma	2 .	-	-	. 2
N-Hemangiosarcoma	2	-	-	2
N-Histiosarcoma	7	-	-	7
N-Leiomyoma	2	-	-	2
N-Myxoma	1	-	-	1
N-Other	80	**	1	1
N-Seminoma	1	-		1
N-Unidentified	1	-	• .	1
Necrosis	2	-	-	2
Necrosis-plantar	3	•	-	3
Neg-Salm Para	56	-	-	56
Negative-Mycoplasma	2	-	-	2
Negative-Salmonella	1	-	-	1
Nephritis	5	-	•	5
Nephrosclerosis	1	-	-	1
Nephrosis	24	-	-	24

CHICKEN DISEASE TABLE (continued)

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
No diagnosis	195	15	31	241
No test	1	-	1	2
Obstruct-intestinal	-	1	-	1
Omphalitis	38	8	11	57
Osteodystrophy	1	-	-	1
Osteomyelitis-syn	-	-	4	4
Overheating	5	-	-	5
Panophthalmitis	2	-	•	2
Paralysis	1	-	-	1
Paralysis-transient	-	1	-	1
Pasted vent	3	1	-	4
Pediculosis	5	-		5
Pendulous crop	5	-	-	5
Pericarditis	2	-	-	2
Peritonitis	11	•	-	11
Perosis	31	4	4	39
Pneum-bacterial	1	-	-	1
Pneum-suppurative	1	-	-	1
Pneumonia	4	-	-	4
Prolapse cloaca	1	-	-	1
Proventriculus	1	-	-	1
Pullorum reactor	4	-	94	4
Pyelonephritis	1	-	**	1
Reproductive disorder	58	5	••	63
Rickets	13	2	3	18
Rupture-egg	1	-	8	9
Rupture-yolk	10	-	9	19
Salpingitis	4	-	-	. 4
Salmonellosis	21	•	3	24

CHICKEN DISEASE TABLE (continued)

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Satisfactory	2	•	1	3
Septicemia	2	-	1	3
Sinusitis	1	••	-	1
Specimen unsuitable	24	1	1 _	26
Spraddle leg	-	1	-	1
Staphylococcosis	73	-		73
Starvation	2.	•	-	.2
Starve out	29	1	3	33
Streptococcosis	6	-	-	6
Suitable for human use	9	94	40	9
Synovitis	I	-	1	2
Tendon rupture	1	000	-	1
Tibial rotation	6	4	••	10
Torsion-intestinal	1	-	-	1
Tox-drugs	-	1	-	1
Tox-mercury	2	•	-	2
Tox-negative	1	•	•	1
Tox-sodium ion	-	-	9	9
Tox-sulfa	9	-	-	9
Tox-unknown	2	-		2
Tracheitis	2	-	2	4
Trauma	15	-	2	17
Trichomoniasis	1	•	-	1
Tuberculosis	13	2	2	17
Ulcer	1	-	-	1
Unsuitable for human use	2	~	-	2
Xanthomatosis	1	•	-	1

ANNUAL REPORT, 1971

TURKEY DISEASE TABLE

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Air sacculitis	27	tud	10	37
Aortic rupture	4	**	1	5
Arizona inf	21	-	8	29
Arthrit-suppurative	1	-	-	1
Arthritis	1	1	1	3
Ascites	13	-	3	16
Aspergillosis	9	-	-	9
Asphyxiation	1	-	-	1
Blepharitis	1	-	-	1
Cannibalism	1	-	-	1
Chondrodystrophy	4	~	•	4
Chronic respiratory disease	1	-	-	1
Cirrhosis	2	-	-	2
Coccidios cecal	-	1	-	1
Colibacillosis	22	-	-	22
Coligranuloma	3	-	-	3
Colisepticemia	3	-	-	3
Conjunctivitis	2	1	-	3
Def - biotin	1	•	-	1
Def - lysine	-	1	44	1
Def - malnutrition	1	-	-	1
Def - nonspecific	1	-	-	1
Def - Vit B complex	-	1	-	1
Dehydration	2	-	1	3
Dermatitis	2	-	-	2
Dermatitis - foot	2	-	-	2
Dermatitis - nutritional	1	-	-	1
Encephalomalacia	-	1	•	1 1
Enterit-E-Coli	13	-	-	13

TURKEY DISEASE TABLE (continued)

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Enterit-hemorrhagic	7	. •		7
Enterit-necrot	3	•	.1	4
Enterit-transmissible	1	-	12	13
Enteritis	3	-	1	4
Enteritis catarrhal	3	-	•	3
Erysipelas	3	-	1,	4
Fatty metamorphosis	1	-	-	1
For identification	1	•	-	1
Fowl Cholera	15	-	3	18
Gizzard impaction	3	-	-	3
Gizzard necrosis	2	-	-	2
Hepatitis-unknown	1	•	-	. 1
Hepatitis-vibrionic	1	-	-	1
Hepatosis	1.	-	-	1
Histomoniasis	9	-	3	12
Hyperpl-biliary	2	-	-	2
Inf-sinusitis	6	-	-	6
Inf-yolk sac	3	**	-	3
Lab exams neg	9	-	3	12
Leukosis~lymphoid	3	~	•	3
Litter eating	2	-	-	2
M-gallisepticum	24	•	-	24
Mareks dis-gen	-	-	1	1
Mismanagement		-	1	1
Moniliasis	13		•	13
Mycoplasma sp	4	-	• .	4
Mycoplasmosis	1	-	•	1
Myopathy	1	-	-	1
N-Adenoc-biliary	1		_	1

TURKEY DISEASE TABLE (continued)

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
Necrosis-beak	•	1	**	1
Neg-Salm Para	23	-	••	23
Negative-Mycoplasma	1 '	-		1
No diagnosis	21	•	2	23
No test	1	•	-	1
Omphalitis	9	2	· 1	12
Pneum-suppurative	2	-	-	2
Pneumonia	1	•		1
Pericarditis	1	-	-	1
Peritonitis	2	-	••	2
Perosis	. 5	~	1	6
Reproductive disorder	3	-	-	3
Rickets	2	~	**	2
Salmonellosis	9	•	-	9
Satisfactory	1	**	•	1
Specimen unsuitable	5	-	-	5
Staphylococcosis	13	1	-	14
Starve out	15	3	-	18
Streptococcosis	1		•	1
Suitable for human use	1	-	-	1
Synovitis	1	-	40	1
Tibial rotation	1		**	1
Tox-fuel oil	1	•	•	1
Tox-mouldy feed	1	-	-	1
Tracheitis	2	•	-	2
Trauma	5	-		5
Unsuitable for human use	2	-	80	2

MISCELLANEOUS BIRDS DISEASE TABLE

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
ATLANTIC BRANT			ı. j	1
Sinusitis	$\frac{1}{1}$			
	1			
BANTAM				2
Def-Vit A	1			
Enteritis	$\frac{1}{2}$			
BUDGERIGAR				38
Abscess-liver; N-Adenoc-bilia	ry 1			
Air sacculitis			1	
Aspergillosis Enteritis	1 6			
Hepatic necrosis	Ů,		1	
Lab exams neg	1			
N-Adenoc			1	
N-Adenoc-biliary	1 1			
N-Carc-Thyroid N-Carcinoma	i			
N-Fibrosarcoma	1			
N-Histiosarcoma	1			
N-Lymphosarcoma	2 2			
N-Papilloma No diagnosis	11			
Obesity	1			
Salmonellosis	2			
Staphylococcosis	2		1	
Trauma	34		$\frac{1}{4}$	
CANARY				6
Enterit-Hemorrhagic			1	U
Gizzard impaction	1			
Gout-visceral	1			
Lab exams neg Leukosis	1		1	
N-Other	1		1	
	3		$\frac{1}{3}$	
CARDINAL				1
No diagnosis			$\frac{1}{1}$	_
			Ī	
CRANE, SANDHILL				1
No diagnosis	1			
3	$\frac{1}{1}$			
DOVE, DIAMOND				1
Pasteurellosis	1 T			
	Ī			
DOVE, RING-NECKED				1
Salmonellosis	1			

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
DOVE, WHITE Salmonellosis	$\frac{1}{1}$			1
DUCK (DOMESTIC) Abscess Air sacculitis; Colibacillosi Antipestifer Aspergillosis Colibacillosis Colibacillosis; B-Staph aureu Colisepticemia	4 2 3	1		44
Enterit-E-Coli Erysipelas Lab exams neg Meningitis Mismanagement	1 12		2 1 1	
Specimen unsuitable Trauma Ulcer	¹ / ₂ 37	$\frac{1}{2}$	5	
DUCK, MALLARD Impact-bowel Gout-visceral Gunshot No diagnosis	1 1 13 1 16			16
DUCK, PIN-TAILED No diagnosis	77			7
DUCK, RED-HEADED No diagnosis	$\frac{1}{1}$			1
DUCK, SCAUP Aspergillosis Def-Vit A Enterit-E-Coli Enterit-chronic	3 2 3 1 9			9
DUCK, SHOVELLER Gunshot	$\frac{1}{1}$			1
DUCK, WHITE PEKIN Experimental	23 23			23
DUCK (WILD) Unsuitable for human use	2/2			. 2

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
FINCH				3
Cardiac failure	1			
Lab exams neg			1	
Nephritis; B-E-Coli	$\frac{1}{2}$			
	2		Ī	
FINCH, MELBA				1
No diagnosis	$\frac{1}{1}$			
	ı			
GOOSE (DOMESTIC)				35
Abscess		1		
Air sacculitis	7		1	
Amyloidosis	1	1		
Coccidios intestinal	5	1		
Colibacillosis; Gout-visceral	5		1'	
Enteritis Enterit-Necrot			1	
Fracture			1	
Inf-yolk sac	3		-	
Lab exams neg			1	
Malnutrition		1	_	
Mismanagement			3	
Muco-mucor sp	1			
No diagnosis	3		1	
P-Capillaria sp			1	
Pneumonia			1	
Pullmonary edema			1	
Rickets		1		
Salmonellosis	2 1			
Specimen unsuitable	1			
Staphylococcosis Suitable for human use	1			
Synovitis; Encephalomalacia	i			
bynovicis, Encepharomaracia	19	4	12	
	1,7	4	12	
GOOSE, EMPEROR	1			1
No diagnosis	$\frac{1}{1}$			
DOGG GWAY				-
GOOSE, ROSS SNOW	1			1
Trauma	$\frac{1}{1}$	•		
COOSE (ULLD)				1
GOOSE (WILD)	1			1
Hemo rrhage	$\frac{1}{1}$			
CROUSE				1
GROUSE Inflormation		1		1
Inflammation		$\frac{1}{1}$		
anovice nymen				
GROUSE, RUFFED	1			1
Mareks dis-gen	$\frac{1}{1}$			
	1			

ANNUAL REPORT, 1971

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
GROUSE, SHARP-TAILED Asphyxiation; Mycosis	<u>1</u>			1
GULL Asphyxiation	$\frac{1}{1}$			1
GULL, FRANKLIN Trauma	3 3			3
GULL, RING-BILLED Intestinal impaction Starvation; Trauma	1 3 4			4
HAWK, RED-TAILED No diagnosis	$\frac{1}{1}$			1
LARK, HORNED Lab exams neg	$\frac{1}{1}$			1
MAGPIE Emaciation Gunshot Lab exams neg No diagnosis	1 2 1 4		1 1 2	6
MERLIN, RICHARDSON'S No diagnosis	$\frac{1}{1}$			1
MYNAH BIRD Lab exams neg Mycosis; Myco-aspergillus sp Septicemia	1 T		1 1 2	3
OSTRICH Aspergillosis; P-Tapeworm	$\frac{1}{1}$			1
PARAKEET Lab exams neg No diagnosis	$\frac{1}{1}$		3 3	4
PARAKEET, SPLENDID No diagnosis	<u>2</u>			2
PARROT, HALF MOON No diagnosis	<u>1</u>			1

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
PARTRIDGE, CHUKAR Histomoniasis	<u>2</u> 2			2
PEACOCK				16
Crop mycosis Hepatic cirrhosis	1 12			
Listeriosis; Aspergillosis; Hepatitis-vibrionic Tuberculosis suspected	1			
Typhlitis	T 5		$\frac{1}{1}$	
PEAFOWL	-			3
Tracheitis	3 3			
PHEASANT				7
Aspergillosis Gunshot	1 1		1	
Sinusitis; Mycoplasma sp Trauma	3		1	
	3		$\frac{1}{2}$	
PHEASANT, GOLDEN N-Adenoc	1			1
	$\frac{1}{1}$			
PHEASANT, RING~NECKED Gout-visceral	1			2
Trauma	$\frac{1}{2}$			
PHEASANT, SILVER				1
Gout-visceral	$\frac{1}{1}$			
PIGEON				18
B-Pseudomonas sp Emaciation	3		1	
Enteritis catarrhal Staphylococcosis	3			
Enterit-necrot Hepatitis-unknown			1	
Lab exams neg	5 1		•	
No diagnosis Pendulous crop	1			
Staphylococcosis; Mycoplasma s Trichomoniasis	1			
	15		3	
PIGEON, HOMING Def-Vit A	1		•	1
	$\frac{1}{1}$			
PIGEON, RACING	,			6
Capillariasis; Trichomoniasis Nephritis	4			
No diagnosis	1/6			

DIAGNOSIS	EDMONTON	FAIRVIEW	LETHBRIDGE	TOTAL
PURPLE GALLINULE Tuberculosis	<u>1</u>			1
QUAIL, JAPANESE Cannibalism Trauma	$\frac{2}{\frac{1}{3}}$			3
ROBIN B-Past-multocida No test	1 T		1	2
SPARROW, ENGLISH Tox-Strychnine	20 20			20
STARLING Lab exams neg			$\frac{1}{1}$	1
SWAN, AUSTRALIAN BLACK Thyroid hyperplasia Thyroid hyperplasia;	Aspergillosis $\frac{1}{2}$			2
SWAN, WHISTLING No diagnosis			1	1
TOUCAN Lab exams neg			<u>1</u>	1
WAXWING, CEDAR Trauma	$\frac{1}{1}$			1

MISCELLANEOUS SPECIMENS TABLE

DIAGNOSIS	SUB TOTAL	TOTAL
BLOOD (CHICKEN) Blood test-negative Experimental Negative M. gallisepticum Negative M. gallisepticum & S. typhimurium Positive M. gallisepticum & Negative S. typhimurium Positive S. typhimurium & negative M. gallisepticum	39 472 100 5997 224 62 6894	6894
BLOOD SMEARS (FALCON) For hematology	23 23	., 23
BLOOD (TURKEY) Negative Newcastle Negative M. gallisepticum & S. typhimurium Positive M. gallisepticum & Negative S. typhimurium Positive Newcastle Positive S. typhimurium & Negative M. gallisepticum	3239 141 20 64 3468	3468
EGGS (CHICKEN) Lab exams neg M. gallisepticum Myco-Aspergillus sp. Myco-Penicillium sp. Neg-Salm Para No diagnosis Suitable for human use Tox-mercury; Suitable for human use	29 13 8 14 146 4 24 4 242	242
EGGS (TURKEY) Arizona infection Lab exams neg Neg-Salm Para Omphalitis	16 7 83 5	111
DUST SAMPLE For culture	<u>1</u>	1
EGGSHELL (CHICKEN) Specimen unsuitable	$\frac{1}{T}$	1
FECAL SAMPLE (BUDGIE) For culture Lab exams neg	$\frac{1}{\frac{1}{2}}$	2
FECAL SAMPLE (PARROT) B-E-Coli	$\frac{1}{1}$	1

MISCELLANEOUS SPECIMENS TABLE (continued)

DIAGNOSIS	SUB TOTAL	TOTAL
FECAL SAMPLE (PIGEON) Lab exams neg	1	1
FEATHER SAMPLE (BUDGIE) Lab exams neg	<u>1</u>	1
FEATHER SAMPLE (CHICKEN) P-Mites	<u>1</u>	1
FEED Feed analysis For culture Lab exams neg Neg-Salm Para No test Satisfactory Tox-negative	16 1 1 9 1 1 1 2 31	31
LITTER SAMPLE For culture For identification	$\begin{array}{c} 1 \\ \frac{1}{2} \end{array}$	2
MISCELIANEOUS SAMPLES For identification	<u>1</u>	1
SWAB B-E-Coli; B-Proteus sp.	<u>6</u>	6
WATER For culture Lab exams neg Neg-Salm Para Satisfactory	1 5 2 38 46	46

TOXICOLOGICAL EXAMINATIONS (Fairview & Lethbridge specimens included)

POISON	BOVINE	PORCINE	EQUINE	OVINE	CANINE	FELINE	MISC.	AVIAN	TOTAL
Arsenic	2				2				4
Chlor-hydrocarbon	1								1
Chlorate				1					1
Copper				3					3
Cresol				1					1
Crude oil	1							~	1
Dicoumarin	2				1	1			4
Drugs				1				1	2
Ethylene glycol						3			3
Fuel oil				1				1	2
Herbicides	1								1
Iron		2							2
Lead	50	1	3		2	. 1	1		58
Mercury		1						2	3
Mouldy feed								1	1
Nitrate	2								2
Other					1				1
Pheno1	11			1					12
Plant	2			1.					3
Potato		1]
Sodium ion	1	8						9	18
Strychnine	1	1			70	9	1	1	83
Sulfa								9	9
Suspected	8	1	1	3	1				14
Thallium	1								1
Unknown	1	· 1		1	1			2	(
Warfarin					1]
									23
Negative for pois	oning .								17
Feed - Satisfacto	ry .	• • • • • • •							6
Unsatisfac	tory .	• • • • • • •		• • • • • •	• • • • • •				1
Water - Satisfact						• • • • • •			11
Unsatisfa	ctory .	* * * * * * * *							3
GRAND TOTAL									64

ANIMAL, POULTRY AND FISH PARASITES

FISH	BIRDS		WILDLIFE	LAB FUR PET	DOMESTIC
Whitefish	Partildge (Chukar) Ostifch Flgeon Goose	Turkey Chicken Wolf Squiret (Ground) Sheep (Scone) Sheep (Rody Mountain) Reindeer Reindeer Mony (Biese) Monse	Monkey Hare (Snowshoe) Gorilla (Snowshoe) Gorilla (Wapiti) Elk (Wapiti) Cont (Oncy Wountein) Elk (Wapiti) Elk (Wapitii) Elk (Wapitii) Elk (Wapitiii) Elk (Wapitiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Antelope (Fronghorn) Mouse Mar Curine Ptg Rabbic Chinchilla Coc Ca	Horse Sheep Ox
F	THE				PROTOZOA Balantidium
Ī		1 150 1		3 1125 2 1	302 41 Coccidia Giardia
	1 5	12 6			Histomonas Trichomonas
					TREMATODES Dicrocoelium
井					Undifferentiated
H					CESTODES Echinococcus (hydatid)
H					1 2 Monezia Taenia
1			2	1 1 2	Thysanosoma Undifferentiated
		24			Cysticercids
					NEMATODES ASCAROTDEA
士		46		64	1 20 Ascarids 0xyuris 1 1 Strongyloides
1					FILARIOIDEA Onchocerca
	1				T Sotaria
-					Undifferentiated SPIRUROIDEA Physaloptera STRONGYLOIDEA
H					1 1 1 METASTRONGYLIDAE
					4 13 Dictyocaulus Filaroides
					Protostrongylus Undifferentiated
					STRONGYLOIDAE Bunostomum Chabertia
					1 1 1 Espohagostomum
-					59 Strongylus Undifferentiated TRICHOSTRONGYLIDAE
H					Cooperia 19 1 Hemonchus
					13 6 Nematodirus
					(19) 17 Trichostrongylus Undifferentiated
					TRICHINELLOIDEA Trichuris
	1 1 1 1 1 1				Capillaria
				1711	INSECTS Gastrophilus Phormia
					1 Undifferentiated myiasis
					5 LICE
H					MITES Demodex
H					38 1 Mange mites Others
		1 1 2 1 1 1 1	2 3 1 1 1 1	1 1 1 1 1 1 2 3	6011139 83 Worm egg counts
		37 4	2 2 1 1 1 1 1 5	1 1 13 14 6	17 38811238 Negative

The above figures represent the totals from the Edmonton, Lethbridge and Fairview Laboratories.

Fecal examinations, whole animal examinations and, in some cases, individual parasite submissions are considered.

Trichinella survey - 837 pork submission originating from a province-wide sampling were examined.

No evidence of Trichinellae was observed.

SALMONELLA TABLE 1961 - 1971 POULTRY PARATYPHOID ISOLATES

TYPING	'61	162	163	164	' 65	166	' 67	168	169	170	'71
S. oranienburg	1	400	2	1				200	3 000		2
S. typhimurium	29	25	23	16	1	13	2	6	6	18	17
S. thompson	2	2	2	**	-	99	-	-	1	1	2
S. bareilly	6	-	-	-	-	· -	98	1	**	1	on
S. senftenberg	1	sim.	ém.	-	on.	-	•	-	-		-
S. california	-	-	•	••		3	-	84	-	•	1
S. anatum	-	-	-	1	-	-		•	on	-	**
S. newport	-	-	99	-	-	-	-	•	1		1
S. minnesota	-	1	•	-	, m	-	900	-	~	-	64
S. bredeney	1	7	2	**	-	-	•	•	-	1	2
S. newington	19	3	2	1	-	-	-	~	•		-
S. kentucky	-	-	1	•	-	-	-	-	-	•	-
S. tennessee	~	1	••	2	1	**	-	-	•	-	•
S. heidelberg	72	28	9	4	- 6	3	2	2	3	2	1
S. worthington	•	-	-	-		-	***	-	-	-	1
S. san diego	-	1	-	-	-	-	-	-	•	•	•
S. enteriditis	-	-	1	-	•	-	~	1	~	6	2
S. derby	3	•	-	-	` 1		-	•	-	-	-
S. montevideo	13	-	1	2	1	600	1	-	3	-	94
S. gallinarum	-	-	-		1	-	•	~	~	~	-
S. manhattan	1	-	1	1	••	**	~	1	1	1	1
S. budapest	1	•	•	••	••	~	•	•	-	•	-
S. muenchen	-	1	-	•	-	-	-	**	-	•	800
S. paratyphi B.	-	5	-	-	•	**	***	-	~	00	04
S. infantis	••	-	4	1	1	6	1	-	1	1	3
S. saint paul	-	•	-	-	-	-	-	1	-	1	3
S. blockley	-	84	-	~	-	-	om	040	7	2	1
S. eimsbuettel	- 0	-	**	-	-	00	-	~		1	-
S. marina	•	***	-	-	-	-	~	~	-	1	•
S. muenster	-	**	64	940	(40)	***	800	***	**	1	94
S. haardt	-	-	•	~	-	900	000	-	-	•	1
Not typed	7	3	, 6	4	1	•		•	-	-	•
S. rough- Not typed	2	4	-	~	₩	-	-	-	-	~	-
TOTALS	158	81	54	33	13	25	6	12	23	37	38

ANNUAL REPORT 1971

SALMONELLA ISOLATIONS

Type	Bovine	Porcine	Misc. An.	Turkey	Chicken	Misc. Pty.	Total
anatum			1				1
blockley				1			1
bredeney					2	,	2
california			1		1		2
carrau			1				1
enteritidis					2		2
haardt					1		1
heidelberg		3					3
infantis		1		1	1		3
manhattan				1			1
newport					1		1
oranienburg				1	1		2
saint paul		2			1		3
thompson			1		1		2
typhimurium	10	1	1	6	6	3 .	29
worthington					1		
TOTAL	10	7	15	10	21	3	56

EOPLASMS - 1971

000	Bovine	Canine	Equine	Feline	Ovine	Porcine	Foultry	Fur-Bearing Animals	Misc.	TOTAL
SILSPINOSN			-	-						4
Adamantinoma		7	-	-						
Adenoma	Ţ	9	-				-			10
Amelantic Melanoma		4								ব্র
Aortic Body Tumor		. -								-
Arrhenoblastoma							***			-
Astrocytoma		-		_			-			-
Calcinosis Circumscripta		2								2
Carcinomas										
Adeno-carcInoma	9	138		9	· <u>-</u>	,,	12	-		45
Anal Gland-carcinoma		17								17
Anaplastic-carcinoma		-								-
Basal-cell-carcinoma		gran. State		m						14
Bile-duct-carcinoma							-			-
Bronchlogenic-carcinoma		2								7
Cyst-adeno-carcinoma		٣		1					-	rv
Gastric-carcinoma		-								-
Mucoid-carcinoma		-								-

NEOPLASMS - 1971

:	Bovina	Canine	Equine	Feline	0vine	Feline Ovine Porcine	Poultry	Fur-Bearing Animals	Misc.	TOTAL
Neoplasms										-
Pancreatic-carcinoma		-								
emonipacino de la constanta de	o	14	4	-	-		-			30
100000000000000000000000000000000000000	ŗ									17
Subaceous-gland-carcinoma	-									-
Thyroid-carcinoma		-								- •
Transitional-cell-carcinoma				-						
Chondroma		-								
Dermoid-ocular	grow.									-
							12			12
Fillor your and we print out a		19	-							. 20
Epidermal Cyst		-							_	7
Epithelioma		m								7
Epulis		7							,	- ;
Fibroma	М	~					-		9	<u>~</u> :
Fibropapilloma	Ξ	-		-						13
				***			24			25
Grandloma		0					-			~
Granulosa-Cell lumour	c	ı u	-				2			10
Hemangioma	7	0	-							ľ
Hemangiopericytoma		72								

NEOPLASMS - 1971

		Canine	Equine	Feline Ovine	0vine	Porcine	Poultry	Fur-Bearing Animals	Misc.	TOTAL
Neoplasm							(77
Hematoma	-	-					7			-
Heotoma		-								-
		32								32
Histiocytoma		į								-
Interstitial-cell Tumour										-
Keratoacanthoma										7
K HOLOUP	-	2					4			7
	2	21	2							26
Lipoma	,	-								-
Lymphocytoma		-		`					r	
Lymphoma	2			22					~	2 !
Malignant Melanoma	-	15		-						17
Mastocytoma		27					-			28
	2	00		-					-	12
ויפן מווסוומ		hh		~						47
Mixed Mammary Tumour		r		`					/	0
Myelocytoma		-					_			1 (
Myeloma		2		,			gum.			2
Мухопа		-		-						2

NEOPLASMS - 1971

Neoplasm	Bovine	Canine	Canine Equine	Feline	0vine	Feline Ovine Porcine Poultry Animals	Poultry	Animals	Misc.	TOTAL
Neurofibroma			-							-
Osteoma			1							-
Other		·					-			2
Ovarian Tumour							-			-
Papilloma	16	w	4	-	7		- (-	29
Pheochromocytoma	-									
Polyp	-									
Rhabdomyoma	-									- :
Sarcoid			12							12
Sarcomas										0.
Chrondro-sarcoma	-	4		-						9
Fibro-sarcoma		15	9	4			9			31
Hemangio-sarcoma		m		-			m,			'
Histiocytic-sarcoma			,				9			•
Leiomyo-sarcoma				-						
Lipo-sarcoma		٣	-							Ť

NEOPLASMS - 1971

Neop]asm	Bovine	Canine	Canine Equine	Feline	0vine	Fur-Bearing Fultry Animals	Poultry	Fur-Bearing Animals	Misc.	TOTAL
Lympho-sarcoma	10	19	-	21			2	-	-	55
Myxo-sarcoma	-	m					-			S
Rhabdomyo-sarcoma						-				-
Osteo-sarcoma		ſΛ	-				_			7
Seminoma		00					-			σ,
Sertoli-cell Tumour		۲۸.								ľ
Transmissible Veneral Tumour		2								2
Trichoepithelioma		15	_							16
Unidentified	-									
										-
TOTALS	74	401	38	27	m	-	88	2	91	089
										-

Totals include figures from Lethbridge and Fairview

